Supplemental Text on Data Quality Control

HCHS/SOL personnel conducted the screening and baseline examination in the participant's preferred language (English or Spanish). Women who reported being pregnant during screening were rescheduled for examination ~3 months postpartum. As part of the subsequent baseline examination anthropometric assessment, study personnel measured standing height[1] and asked participants to self-report weight (in whole kg or lb) before measuring their weight[1] (to a tenth of a kg).

Quality control measures were also implemented to ensure that anthropometrics were measured precisely. These included daily inspection/zero-balancing and weekly scale calibration and centralized two day-training certifying ≤0.5 cm and ≤0.5 kg height and weight agreement between a trainee and expert on ≥5 assessments. Personnel initialed each form and monthly the HCHS/SOL Coordinating Center notified clinic managers of data points beyond an expected error range, which resulted in refresher training(s) for the specific personnel involved. With participant consent, each personnel audio-recorded three baseline interviews (one per recruitment year) and were randomly invited to workshop these recordings with personnel at others sites.

Additionally, inter-rater reliability was assessed by randomly selecting 3-5% of participants for retest during the same visit and immediately after the initial anthropometric exam. Average self-reported weights (n=560) differed between the two raters (=original–replicate) by 0.46 kg (95% confidence interval, CI: -0.12, 1.03); whereas, measured weights and heights (n=565-570) differed by 0.16 kg (95% CI: -0.18, 0.50) and -0.19 cm (95% CI: -0.46, 0.08). This resulted in good reliabilities and low

coefficients of variation for self-reported weight (0.93, 6.3%) and measured weight and height (0.97 and 0.94; 3.7% and 1.5%, respectively).

Given the large number of Hispanic/Latino immigrants to the U.S.,[2] we were concerned about the potential of unit confusion (kg or lb) and sought to compare our range of difference between self-reported and measured weight with previous reports. One study from Mexico (where metric units are used) reported that among individuals ages >75 years, the differences ranged from -14.8 to 16.6 kg in males, and -8.6 to 14.7 kg in females.[3] As such we flagged differences between self-reported and measured weight ≥±15kg as possible data errors. We applied a staged protocol described in our Supplemental Digital Content (SDC) 1 (see Figure and Table) to all 16,203 participants with data on self-reported and measured weights (99% of entire sample) to: 1) address these potential data errors, and 2) exclude currently pregnant women (who reported not being pregnant during screening but later reported being pregnant as part of their medical history), individuals with limb amputations (≥45 years, not otherwise affecting their ability to stand on both feet), or with a BMI <16 or >70 kg/m^2. Unless indicated otherwise, all results presented below pertain to the sample with both self-reported and measured weight that remained after applying this staged protocol (n=16,119).

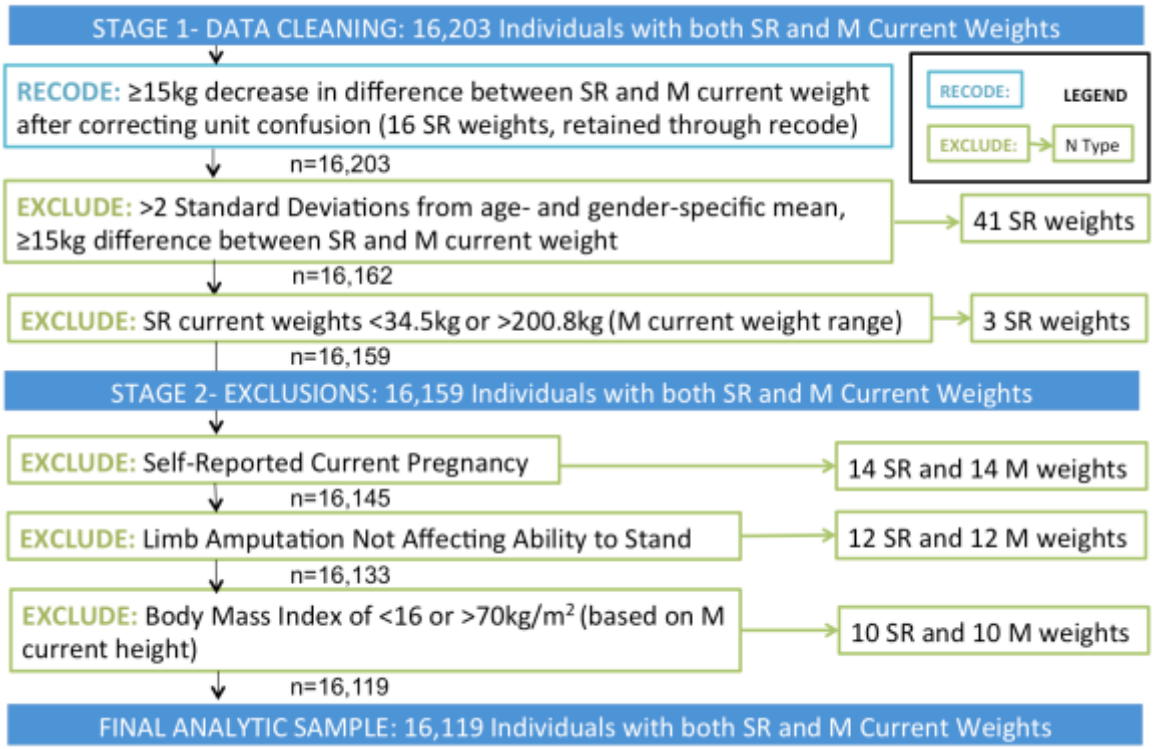
Raw Mean Difference in Self-Reported and Measured Weight

The raw calculated difference ranged from 74.5 kg under to 51.6 kg over-reporting, resulting in a mean difference of 0.26 kg (95% CI: 0.14, 0.37; confidence limit difference, CLD: 0.23 kg) and good correlation (r^2=0.94; n=16,203). Although self-reported and measured weights were similar for most individuals (see Figure 1A), 129 calculated differences were beyond four standard deviations from mean (see Figure 1C).

We flagged 229 (1.4% of sample) extreme differences (≥±15 kg) as potential data errors. After data quality control, 48 of these extreme differences were resolved reducing the number of flagged weights to 181 (see eTable 1 above).

Supplemental Text References

1. Kaplan RC, Aviles-Santa L, Parrinello CM, Hanna DB, Jung M, Castaneda SF, Hankinson AL, Isasi CR, Birnbaum-Weitzman O, Kim RS, Daviglus ML, Talavera GA, Schneiderman N, Cai JW. Body Mass Index, Sex, and Cardiovascular Disease Risk Factors Among Hispanic/Latino Adults: Hispanic Community Health Study/Study of Latinos. *Journal of the American Heart Association* 2014;**3**(4).
2. Hispanic Nativity Shift. Washington, DC: The Pew Research Center, 2014.
3. Avila-Funes JA, Gutierrez-Robledo LM, Ponce De Leon Rosales S. Validity of height and weight self-report in Mexican adults: results from the national health and aging study. *J Nutr Health Aging* 2004;**8**(5):355-61.



eFigure 1. Flow chart of staged quality control on 16,203 adult Hispanic/Latino participants (18-76 years) with both self-reported (SR) and measured (M) weight at the baseline examination (2008-2011) of the Hispanic Community Health Study/Study of Latinos (HCHS/SOL), resulting in 16 self-reported weights recoded due to unit confusion, 84 individuals excluded, and a final analytic sample of 16,119 participants.

eTable 1. Results of staged data quality control protocol on 16,203 adult Hispanic/Latino participants (18-76 years) with both self-reported and measured weight at the baseline examination (2008-2011) of the Hispanic Community Health Study/Study of Latinos (HCHS/SOL).

Action	Measure(s)	Criteria	Number of Individuals (Number Affected)	Number of Remaining Individuals
Stage 1- Data Cleaning of Flagged SR Current Weights (≥15kg change)[a]				
Recoded[b]	Current SR weight	≥15kg drop in difference between SR and M current weight	16,203 (16 recoded[b])	16,203
Excluded	Current SR weight	>2 SD[c], ≥15kg difference between SR and M current weight	16,203 (41)	16,162
	Current SR weight	<34.5kg[d]	16,162 (1)	16,161
		>200.8kg[d]	16,161 (2)	16,159
Stage 2- Exclusions				
Excluded	Current SR, M weights	Current pregnancy[e]	16,159 (14)	16,145
	Current SR, M weights	Limb amputation[e]	16,145 (12)	16,133
	BMI for current SR, M weight	<16.0kg/m^2 [f]	16,133 (14)	16,119
		>70.0kg/m^2 [f]	-	-
Final Analytic Sample with both SR and M Current Weights				**16,119**

Abbreviations: BMI=Body mass index, M=Measured, SD=Standard deviation, SR=Self-reported

[a]At the beginning of the first stage, 229 current SR weights were flagged for being ≥15kg from the M weight at the same time point. After completing Stage 1, the number of flagged SR weights decreased to 183. After Stage 2, the number of flagged SR weights decreased to 181.

[b]The two possible scenarios of kg/lb SR were assessed (1- true SRs in kg were recorded as lb, 2- true SR in lb were recorded as kg) and the weight was recoded if one of the scenarios were favored according to the listed criteria.

[c]Beyond 2 standard deviations from the gender and age-specific mean of any self-reported weight in HCHS/SOL (categories of age: 18-21, 22-29, 30-39, 40-49, 50-59, 60-69, 70-76 years).

[d]The criteria <34.5 and >200.8 were obtained from the range of M weights at the same time point. If social desirability were to differentially bias SR weights at the same away from extreme weights, we would expect that anything beyond the range of M weights might be a data error.

[e]Both current SR and M weights were excluded for women reporting to be currently pregnant (noted on Medical History Questionnaire Form) and for individuals with a limb amputation (noted on Ankle Arm Blood Pressure Procedure Form), who were otherwise able to stand on both feet (noted on Anthropometric Procedure Form) at the baseline examination.

[f]BMI was calculated for all SR and M weights using an individual's M adult height at the baseline examination under the assumption that this would be static across adulthood.